

In the Claims

Applicant respectfully submits a listing of the claims as pending. No amendments to the claims are requested at this time.

1. (Previously Presented) A computer-readable medium having stored thereon a tile data structure for a tile representing an image texture for tiled texture mapping, comprising:

plural tile data structures representing plural respective views of the image texture displayed together on a display screen immediately adjacent each other.

2. (Original) The medium of claim 1 in which the plural respective views of the image texture are based upon oblique-parallel projections of the image texture.

3. (Previously Presented) The medium of claim 1 in which the plural respective views correspond to a range of user viewing angles that are displayed together on the display screen, each tile data structure corresponding to a segment in the range of user viewing angles.

4. (Original) The medium of claim 3 in which the segments in the range of user viewing angles are not equal.

5. (Previously Presented) The medium of claim 4 in which viewing angles are with respect to a predetermined reference and the segments closest to the predetermined reference are smaller than the segments farthest from the predetermined reference.

6. (Original) The medium of claim 3 in which the segments in the range of user viewing angles are equal.

7. (Original) The medium of claim 3 in which the range of viewing angles extends over viewing angles of positive and negative magnitudes relative to a viewpoint position.

8. (Original) The medium of claim 7 in which the segments of viewing angles of positive magnitudes to which tile data structures correspond are matched one-to-one with the segments of viewing angles of negative magnitudes to which tile data structures correspond.

9. (Original) The medium of claim 1 in which the plural respective views are within only one angular dimension.

10. (Original) The medium of claim 9 in which the one angular dimension is a horizontal angular dimension corresponding to angles within a horizontal imaging plane.

11. (Original) The medium of claim 1 in which the plural respective views are within only two angular dimensions.

12. (Original) The medium of claim 11 in which the two angular dimensions are a horizontal angular dimension corresponding to angles within a horizontal imaging plane and a vertical angular dimension corresponding to angles within a vertical imaging plane.

13. (Previously Presented) The medium of claim 1 in which the image texture includes an outer surface and the outer surface is of the same dimension in each of the plural respective views of the image texture.

14. (Original) The medium of claim 1 in which the plural respective views of the image texture are based upon morphings of the image texture.

15. (Original) The medium of claim 1 in which the plural respective views of the image texture are based upon manually formed renderings of the image texture.

16. (Previously Presented) A computer method of applying a texture map to an image surface in a graphics image rendered on a computer display screen, comprising:

identifying plural adjacent regions of the image surface to which regions the texture map is to be applied;

determining a user viewing angle for each of the plural regions;

correlating each viewing angle with a texture map tile corresponding to the viewing angle; and

displaying the texture map tiles together at the adjacent regions on the computer display screen to form the texture map on the image surface.

17. (Previously Presented) The computer method of claim 16 in which the texture map tile corresponding to the viewing angle for each region is one of plural predetermined texture map tiles stored in a computer memory.

18. (Previously Presented) The computer method of claim 16 in which the texture map tile corresponding to the viewing angle for each region is calculated based upon the determined viewing angle.

19. (Previously Presented) The computer method of claim 16 in which determining a viewing angle for each region includes determining only one viewing angle for the region corresponding to angles within only one imaging plane.

20. (Original) The computer method of claim 19 in which the one viewing angle is a horizontal viewing angle corresponding to an angle within only a horizontal imaging plane.

21. (Previously Presented) The computer method of claim 16 in which determining a viewing angle for each region includes determining two viewing angles corresponding to angles within two transverse imaging planes.

22. (Previously Presented) The computer method of claim 21 in which the two viewing angles are a horizontal viewing angle and a vertical viewing angle corresponding to angles within horizontal and vertical imaging planes, respectively.

23. (Canceled)

24. (Previously Presented) The computer method of claim 16 in which the texture map tile corresponding to the viewing angle is of a predetermined tile structure and includes an oblique parallel projection of the predetermined tile structure.

25. (Original) The computer method of claim 16 in which the texture map tile corresponding to the viewing angle is of a predetermined tile structure and includes a morphing of the predetermined tile structure.

26. (Previously Presented) The computer method of claim 16 in which the texture map tile corresponding to the viewing angle is of a predetermined tile structure and includes a manually formed rendering of the predetermined tile structure.

27. (Previously Presented) A method of generating a tile data structure in a computer readable medium representing an image texture for a tiled texture mapping, comprising:

determining plural selected viewing angles for viewing together plural adjacent tiles of the image texture;

correlating each of the plural selected viewing angle to a predetermined range of viewing angles that includes the selected viewing angle, immediately successive predetermined viewing angles being correlated to adjacent tiles of the image texture; and

forming for each of the selected viewing angles a data structure that includes plural projections of the image texture relative to the selected viewing angles of plural adjacent tiles to be viewed together.

28. (Original) The method of claim 27 in which the image texture includes a front surface with predetermined dimensions and the projections of the image texture relative to the selected viewing angles maintains the predetermined dimensions of the front surface of the image texture.

29. (Original) The method of claim 27 in which the projections of the image texture relative to the selected viewing angles are oblique parallel projections.

30. (Original) The method of claim 27 in which the plural selected viewing angles are within only one angular dimension.

31. (Original) The method of claim 27 in which the plural selected viewing angles are within only two angular dimensions.

32. (Previously Presented) The medium of claim 27 in which the plural projections of the image texture are based upon morphings of the image texture.

33. (Previously Presented) The medium of claim 27 in which the plural projections of the image texture are based upon manually formed renderings of the image texture.

34. (Previously Presented) In a computer readable medium, computer software instructions for applying a texture map to an image surface in a graphics image rendered on a computer display screen, comprising:

software instructions for identifying plural adjacent regions of the image surface to which regions the texture map is to be applied;

software instructions for determining a viewing angle for each of the plural regions;

software instructions for correlating each viewing angle with a texture map tile corresponding to the viewing angle; and

software instructions for displaying together the texture map tiles corresponding to the viewing angles at the adjacent regions on the computer display screen to form the texture map on the image surface.

35. (Previously Presented) The medium of claim 34 in which the texture map tile corresponding to the viewing angle for each region is one of plural predetermined texture map tiles stored in a computer memory.

36. (Previously Presented) The medium of claim 34 in which the texture map tile corresponding to the viewing angle for each region is calculated based upon the determined viewing angle.

37. (Previously Presented) In a computer readable medium, computer software instructions for applying a texture map to an image surface in a graphics image rendered on a computer display screen, comprising:

software instructions for identifying plural adjacent regions of the image surface to which regions the texture map is to be applied;

software instructions for determining a viewing angle for each of the plural regions;

software instructions for correlating each viewing angle with a texture map tile corresponding to the viewing angle, each texture map tile being based upon a predetermined tile structure and including an oblique parallel projection of the predetermined tile structure; and

software instructions for rendering the texture map tiles at the adjacent regions on the computer display screen to form the texture map on the image surface.

38. (Previously Presented) The medium of claim 34 in which the texture map tile corresponding to the viewing angle for each region is of a predetermined tile structure and includes a morphing of the predetermined tile structure.

39. (Previously Presented) The medium of claim 34 in which the texture map tile corresponding to the viewing angle for each region is of a predetermined tile structure and includes a manually formed rendering of the predetermined tile structure.

40-42. (Canceled)

43. (Previously Presented) In a computer readable medium, computer software instructions for applying a texture map to an image surface in a graphics image for rendering on a computer display screen, the computer software instructions comprising:

identifying an array of regions of the image surface to which the texture map is to be applied;

determining a projection viewing angle for each region of the array;
displaying a selected texture map tile at each region on the computer display screen to form the texture map on the image surface, the selected texture map tile corresponding to the determined projection viewing angle for the region.

44. (Previously Presented) The computer readable medium of claim 43, wherein the selected texture map tile includes an oblique parallel projection of a texture based upon the determined projection viewing angle.

45. (Previously Presented) A computer-readable medium having stored thereon a tile data structure for a tile representing an image texture for tiled texture mapping, comprising:

an array of plural tile data structures for displaying on a display screen, the plural data structures comprising a first tile data structure representing a first projection view of the image texture based upon a first viewing angle and a second tile data structure representing a second projection view of the image texture based upon a second viewing angle, the first viewing angle being different from the second viewing angle.

46. (Previously Presented) The computer readable medium of claim 45, wherein the first projection view is an oblique parallel projection of the image texture based upon the first viewing angle, and the second projection view is an oblique parallel projection of the image texture based upon the second viewing angle.